Rec'd PCT/PTO 07 DEC 2004

517,482

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
24 December 2003 (24.12.2003)

PCT

(10) International Publication Number
WO 03/107336 A1

(51) International Patent Classification[7]: G11B 7/09

(21) International Application Number: PCT/IB03/02411

(22) International Filing Date: 5 June 2003 (05.06.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
02077295.0 12 June 2002 (12.06.2002) EP

(71) Applicant *(for all designated States except US)*: **KONINKLIJKE PHILIPS ELECTRONICS N.V.** [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventor; and

(75) Inventor/Applicant *(for US only)*: **SPRUIT, Johannes, H., M.** [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

(74) Agent: **DEGUELLE, Wilhelmus, H., G.**; Philips Intellectual Property & Standards, Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

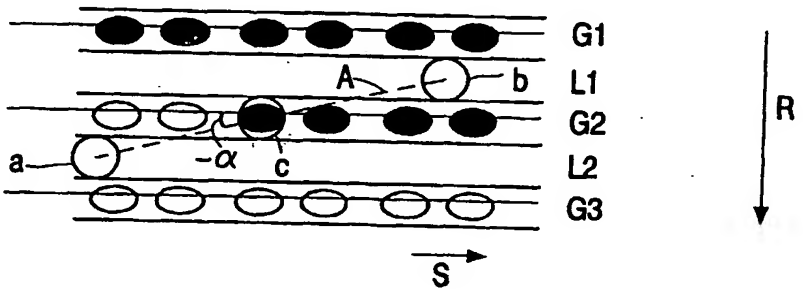
(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— *with international search report*
— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: OPTICAL SCANNING DEVICE



(57) Abstract: A method of scanning an optical recording medium having data storage regions arranged in generally concentrically arranged track sections therein, the method comprising rotating the optical recording medium such that the disk moves in a spinning direction (S) with respect to a scanning spot, and maintaining tracking in a radial sense using a push-pull radial error signal generated by detecting push-pull signals from at least three radiation spots formed on the disk, a main spot (c), a forward spot (a) and a rear spot (b), to move the spots in a radial scanning direction (R) during a plurality of rotations of the disk, wherein the forward spot scans the optical recording medium in a position which is tangentially offset from the main spot in a direction opposite to the spinning direction, and the rear spot scans the optical recording medium in a position which is tangentially offset from the main spot in a direction coinciding with the spinning direction, characterized in that the method comprises positioning the three radiation spots with radial offsets such that the forward spot is located in a position which is radically offset from the main spot in a direction coinciding with the radial scanning direction, and such that the rear spot is located in a position which is radically offset from the main spot in a direction opposite to that of the radial scanning direction.

WO 03/107336 A1